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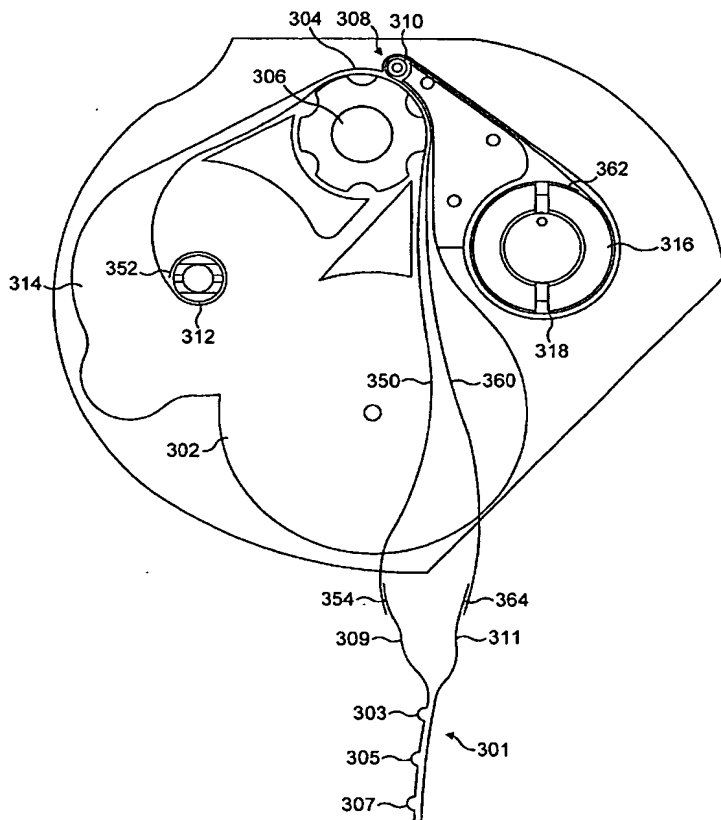
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[Continued on next page]

(54) Title: METHOD FOR LOADING A MEDICAMENT DISPENSER WITH A MEDICAMENT CARRIER



(57) Abstract: There is provided a method of loading a housing for a medicament dispenser with a medicament carrier. The carrier has the form of an elongate strip and has multiple distinct medicament doses carried thereby. The carrier is particularly in the form of a peelable blister strip. In one aspect, the method comprises the steps of loading the housing with at least one leader in the form of an elongate strip such that a leading end of said at least one leader is drivably anchored within the housing and a trailing end of the at least one leader protrudes from the housing; fixing a first end of the medicament carrier to the trailing end of the at least one leader; and drivably moving the leading end of the leader such that the medicament carrier is moved into the housing.



SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/10347

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61M15/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61M A61J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2002/053344 A1 (DAVIES MICHAEL BIRSHA ET AL) 9 May 2002 (2002-05-09) paragraph '0082!; figures 18,20	33  1,2,35, 36,40-42
X A	EP 0 467 172 A (PROMO PACK SA) 22 January 1992 (1992-01-22) column 7, line 34 -column 8, line 14	33  1,2,35, 36,40-42
A A	EP 1 132 104 A (PFEIFFER ERICH GMBH & CO KG) 12 September 2001 (2001-09-12) paragraphs '0028!, '0031!-'0044!	1,2,33, 40-42 35,36
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

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- "&" document member of the same patent family

Date of the actual completion of the international search

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/10347

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02 36189 A (ANDERSON GREGOR JOHN MCLENNAN ; FARR PHILIP WILLIAM (GB); RAND PAUL) 10 May 2002 (2002-05-10) page 37, line 26 -page 41, line 19 page 40, line 14 -page 41, line 7 ----	1,2,33, 35,36, 40-42
P,A	WO 02 078594 A (BONNEY STANLEY GEORGE ; JONES ANTHONY PATRICK (GB); GLAXO GROUP LTD) 10 October 2002 (2002-10-10) page 24, line 27 -page 25, line 32; figure 11 ----	1,2,33, 35,36, 40-42
P,A	WO 03 061744 A (BONNEY STANLEY GEORGE ; DAVIES MICHAEL BIRSHA (GB); GLAXO GROUP LTD) 31 July 2003 (2003-07-31) page 14, line 16 - line 18 page 20, line 18 -page 21, line 25 figures 2-5 ----	1,2,33, 35,36, 40-42
P,A	WO 03 061743 A (ANDERSON GREGOR JOHN MCLENNAN ; BONNEY STANLEY GEORGE (GB); DAVIES) 31 July 2003 (2003-07-31) page 43, line 13 -page 44, line 6 page 56, line 1 -page 57, line 8 ----	1,2,33, 35,36, 40-42
X	US 4 090 642 A (BAKER HUGH WILLIAM BARNES) 23 May 1978 (1978-05-23) -----	35,39
A	column 2, line 23 - line 55; figure 3 -----	36

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 03/10347

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:  
1-29, 33-39, 40-42
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-29,33,34,40-42

A method for loading a housing for a medicament dispenser with a medicament carrier and drivably moving the medicament carrier into the housing by means of a leader and a housing for a medicament dispenser and for the method

2. Claims: 30-32

A method for making a pre-assembly and a pre-assembly obtained by the method

3. Claims: 35-39

A method for coiling a medicament carrier and a coiled medicament carrier obtained by the method

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/10347

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2002053344	A1	09-05-2002	US 6378519 B1	30-04-2002
			US 6032666 A	07-03-2000
			US 5860419 A	19-01-1999
			US 5873360 A	23-02-1999
			US 5590645 A	07-01-1997
			AP 310 A	07-01-1994
			AT 401007 B	28-05-1996
			AT 43791 A	15-10-1995
			AU 675825 B2	20-02-1997
			AU 5926794 A	16-06-1994
			AU 645056 B2	06-01-1994
			AU 7202591 A	05-09-1991
			BE 1003798 A4	16-06-1992
			BR 9100843 A	05-11-1991
			CA 2037421 A1	03-09-1991
			CA 2288413 A1	03-09-1991
			CH 683319 A5	28-02-1994
			CN 1054893 A ,B	02-10-1991
			CN 1107687 A ,B	06-09-1995
			CZ 283168 B6	14-01-1998
			CZ 9601807 A3	16-12-1998
			CY 2010 A	20-02-1998
			CY 2014 A	20-02-1998
			CZ 285501 B6	11-08-1999
			DE 4106379 A1	05-09-1991
			DK 37991 A	03-09-1991
			ES 2031763 A6	16-12-1992
			FI 911037 A	03-09-1991
			FI 990115 A	21-01-1999
			FR 2659558 A1	20-09-1991
			FR 2660550 A1	11-10-1991
			GB 2242134 A ,B	25-09-1991
			GB 2274273 A ,B	20-07-1994
			GR 91100096 A ,B	30-06-1992
			HK 18895 A	17-02-1995
			HK 19195 A	17-02-1995
			HR 940631 A1	31-08-1996
			ID 20246 A	05-11-1998
			IE 910698 A1	11-09-1991
			IL 97396 A	31-12-1995
			IT 1244655 B	08-08-1994
			JP 3110477 B2	20-11-2000
			JP 4220266 A	11-08-1992
			KR 210412 B1	15-07-1999
			KR 244004 B1	15-03-2000
			LU 87898 A1	16-11-1992
			NL 9100381 A ,B,	01-10-1991
			NO 910836 A	03-09-1991
			NO 302929 B1	11-05-1998
			NO 980033 A	05-01-1998
EP 0467172	A	22-01-1992	IT 1243344 B	10-06-1994
			AT 103825 T	15-04-1994
			DE 69101600 D1	11-05-1994
			DE 69101600 T2	21-07-1994
			EP 0467172 A1	22-01-1992
			US 5207217 A	04-05-1993

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/10347

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1132104	A	12-09-2001	DE 10011120 A1	13-09-2001
			EP 1132104 A2	12-09-2001
			US 2002032409 A1	14-03-2002
WO 0236189	A	10-05-2002	AU 1233002 A	15-05-2002
			AU 1825002 A	15-05-2002
			BR 0115094 A	07-10-2003
			CA 2427145 A1	10-05-2002
			CZ 20031208 A3	18-02-2004
			WO 0236188 A2	10-05-2002
			WO 0236189 A1	10-05-2002
			EP 1330281 A1	30-07-2003
			EP 1330282 A2	30-07-2003
			HU 0301446 A2	29-09-2003
			NO 20031915 A	29-04-2003
WO 02078594	A	10-10-2002	EP 1372570 A2	02-01-2004
			WO 02078594 A2	10-10-2002
WO 03061744	A	31-07-2003	WO 03061743 A1	31-07-2003
			WO 03061744 A1	31-07-2003
			WO 2004011067 A1	05-02-2004
			WO 2004011068 A1	05-02-2004
			WO 2004011069 A1	05-02-2004
WO 03061743	A	31-07-2003	WO 03061743 A1	31-07-2003
			WO 03061744 A1	31-07-2003
US 4090642	A	23-05-1978	GB 1518998 A	26-07-1978
			CA 1035327 A1	25-07-1978
			DE 2637931 A1	03-03-1977
			ES 451033 A1	01-08-1977
			FR 2322060 A1	25-03-1977